TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

C-1000B

Door Entry and CCTV Camera Controller

April 26, 2004

Add One or Two Doorboxes to an Existing Phone Line and Provide CCTV Camera Control

The **C-1000B** allows single line phones or phone systems to share a phone line with one or two doorboxes or paging amplifiers. The **C-1000B** provides two Touch Tone controlled relays to operate door strikes or gate openers and **provides doorbox triggered CCTV camera switching**.

Doorboxes and paging amplifiers can now be used on single line, residential or home office applications as well as on fully loaded systems, because they are no longer limited to installation on unused trunk ports.

The **C-1000B** expands the potential installation sites for many peripherals such as doorboxes and paging amplifiers.

Features

- Allows two **Viking** doorboxes or paging amplifiers to share a single telephone line with a residential or business telephone system
- **Doorbox triggered CCTV camera switching**
- Custom ringing mode allows you to distinguish doorbox calls from C.O. calls
- Compatible with the following **Viking** doorbox models: **W-1000**, **W-2000A**, or **W-3000**
- Compatible with a single **Viking** handsfree phone (**E-10**, **E-20A**, **E-30**, **K-1700-3** or **1600A** Series)
- **Analog PABX/KSU station mode**
- Call waiting tones indicate which doorbox is calling and distinguish a doorbox call from a C.O. line call
- Calls can be placed on hold when visitors call from the doorbox or when paging
- Provides two Touch Tone controlled N.O. or N.C. dry contact closures (5 amp rating) for door strikes or gate openers
- Keyless entry/postal lock input
- Built-in talk battery for “No C.O. Line” applications
- Auxiliary contact output for doorbells, cameras, etc.

Applications

- Add one or two **Viking** Doorboxes to your home or office phones
- **Switch between two CCTV cameras automatically when either doorbox is activated**
- Add paging amplifiers to provide loud ringing and paging to businesses with single line phones or fully loaded phone systems
- Provide commercial or residential security via two-way handsfree communication from a door or gate
- Use as a line concentrator (one fax machine or answering machine can answer three lines)

Phone...715.386.8861

http://www.vikingelectronics.com

Specifications

Power: 120V AC/13.8V AC 1.25A, UL listed adapter provided
Dimensions: 133mm x 89mm x 44mm (5.25" x 3.5" x 1.75")
Shipping Weight: 0.9 kg (2 lb)
Environmental: 0° C to 32° C (32° F to 90° F) with 5% to 95% non-condensing humidity
Door Strike Relay Contacts: 5A @ 30V DC/250V AC maximum
CCTV/Auxiliary Relay Contacts: .5A @ 125V AC, 1A @ 30V AC
Pulse Dialing Detection: 10 pps
Talk Battery: 30V DC
Maximum Doorbox Power Supply Length: 100 ft, 24 awg wire
Connections: (2) RJ11 jacks, (1) 12 position terminal block

info@vikingelectronics.com

IF YOU HAVE A PROBLEM WITH A VIKING PRODUCT, PLEASE CONTACT: VIKING TECHNICAL SUPPORT AT (715) 386-8666

Our Technical Support Department is available for assistance Monday 8am-4pm and Tuesday-Friday 8am - 5pm central time. So that we can give you better service, before you call please:

1. Know the model number, the serial number and what software version you have (see serial label).
2. Have your Technical Practice in front of you.
3. It is best if you are on site.

RETURNING PRODUCT FOR REPAIR

The following procedure is for equipment that needs repair:

1. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (RA) number. The customer MUST have a complete description of the problem, with all pertinent information regarding the defect, such as options set, conditions, symptoms, methods to duplicate problem, frequency of failure, etc.
2. Packing: Return equipment in original box or in proper packing so that damage will not occur while in transit. Static sensitive equipment such as a circuit board should be in an anti-static bag, sandwiched between foam and individually boxed. All equipment should be wrapped to avoid packing material lodging in or sticking to the equipment. Include ALL parts of the equipment. C.O.D. or freight collect shipments cannot be accepted. Ship cartons prepaid to: **Viking Electronics, 1531 Industrial Street, Hudson, WI 54016**
3. Return shipping address: Be sure to include your return shipping address inside the box. We cannot ship to a PO Box.
4. RA number on carton: In large printing, write the R.A. number on the outside of each carton being returned.

RETURNING PRODUCT FOR EXCHANGE

The following procedure is for equipment that has failed out-of-box (within 10 days of purchase):

1. Customer must contact Viking's Technical Support at 715-386-8666 to determine possible causes for the problem. The customer MUST be able to step through recommended tests for diagnosis.
2. If the Technical Support Product Specialist determines that the equipment is defective based on the customer's input and troubleshooting, a Return Authorization (R.A.) number will be issued. This number is valid for fourteen (14) calendar days from the date of issue.
3. After obtaining the R.A. number, return the approved equipment to your distributor, referencing the R.A. number. Your distributor will then replace the product over the counter at no charge. The distributor will then return the product to Viking using the same R.A. number.
4. **The distributor will NOT exchange this product without first obtaining the R.A. number from you. If you haven't followed the steps listed in 1, 2 and 3, be aware that you will have to pay a restocking charge.**

WARRANTY

Viking warrants its products to be free from defects in the workmanship or materials, under normal use and service, for a period of one year from the date of purchase from any authorized Viking distributor or 18 months from the date manufactured, which ever is greater. If at any time during the warranty period, the product is deemed defective or malfunctions, return the product to Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI., 54016. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (R.A.) number.

This warranty does not cover any damage to the product due to lightning, over voltage, under voltage, accident, misuse, abuse, negligence or any damage caused by use of the product by the purchaser or others.

Vikings sole responsibility shall be to repair or replace (at Viking's option) the material within the terms stated above. VIKING SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND INCLUDING INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING DIRECTLY OR INDIRECTLY FROM ANY BREACH OF ANY WARRANTY EXPRESSED OR IMPLIED, OR FOR ANY OTHER FAILURE OF THIS PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXCLUDED BEYOND THE ONE YEAR DURATION OF THIS WARRANTY. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

FCC REQUIREMENTS

This equipment complies with Part 68 of the FCC rules. Located on the equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN). If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive REN's on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the REN's should not exceed five (5.0) To be certain of the number of devices that may be connected to the line, as determined by the total REN's, contact the telephone company to determine the maximum REN for the calling area.

This equipment cannot be used on the telephone company-provided coin service. Connection to Party Line Service is subject to State Tariffs.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact: ***Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI 54016 (715) 386-8666***

If the trouble is causing harm to the telephone network, the telephone company may request you to remove the equipment from the network until the problem is resolved.

The C-1000B uses the USOC jack RJ11C.

It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightning strikes and other electrical surges.

This equipment is Hearing-Aid Compatible (HAC).

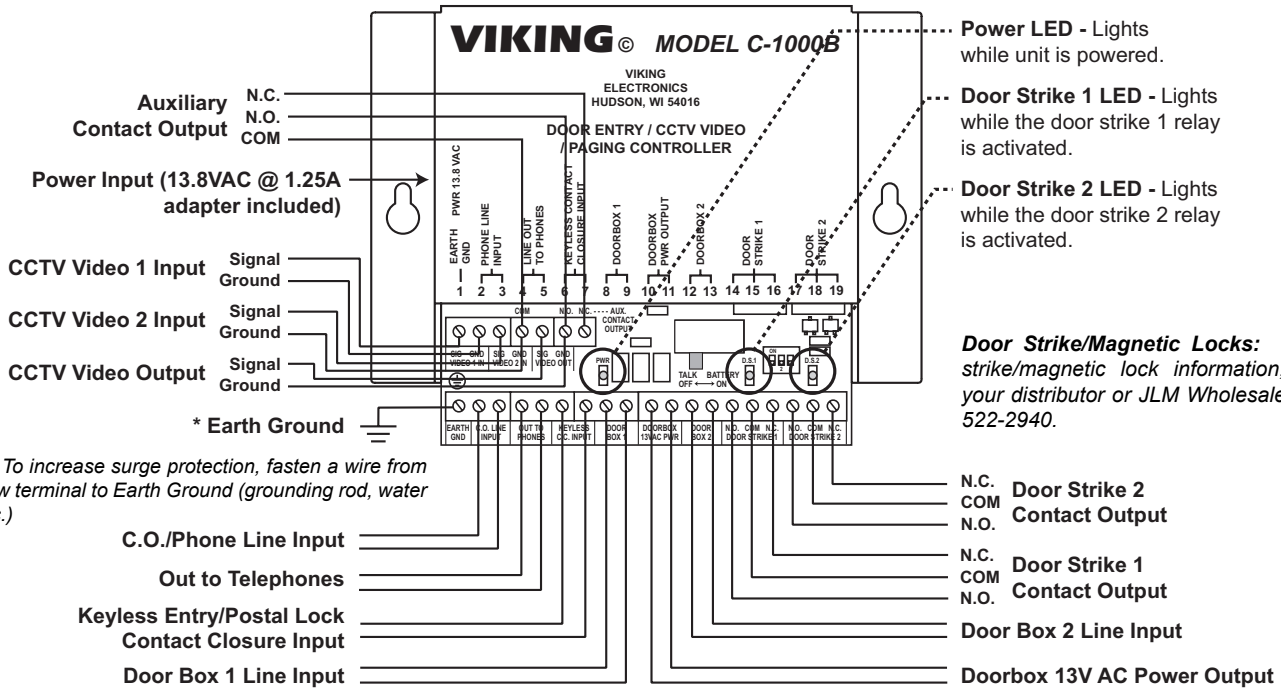
The telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.)

PART 15 LIMITATIONS

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Installation and Applications

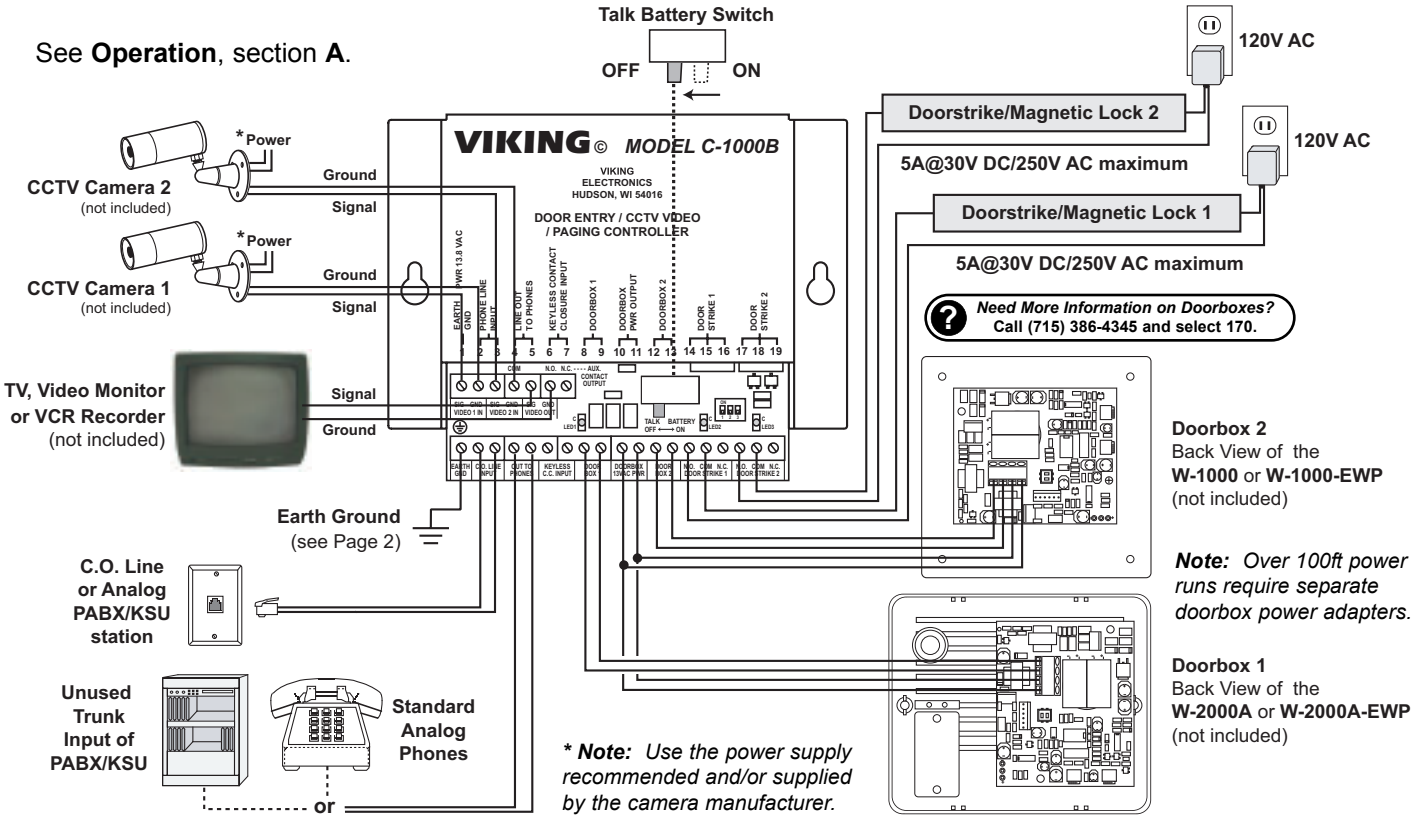
IMPORTANT: *Electronic devices are susceptible to lightning and power station electrical surges from both the AC outlet and the telephone line. It is recommended that a surge protector be installed to protect against such surges. Contact Panamax at (800) 472-5555 or Electronic Specialists Inc. at (800) 225-4876.*


VIKING © MODEL C-1000B
VIKING ELECTRONICS HUDSON, WI 54016
DOOR ENTRY / CCTV VIDEO / PAGING CONTROLLER
Auxiliary Contact Output
N.C.
N.O.
COM
Power Input (13.8VAC @ 1.25A adapter included)
CCTV Video 1 Input
Signal
Ground
CCTV Video 2 Input
Signal
Ground
CCTV Video Output
Signal
Ground
* Earth Ground
Power LED - Lights while unit is powered.
Door Strike 1 LED - Lights while the door strike 1 relay is activated.
Door Strike 2 LED - Lights while the door strike 2 relay is activated.
Door Strike/Magnetic Locks: For door strike/magnetic lock information, contact your distributor or JLM Wholesale at (800) 522-2940.
N.C.
COM
N.O.
Door Strike 2 Contact Output
N.C.
COM
N.O.
Door Strike 1 Contact Output
Door Box 2 Line Input
Doorbox 13V AC Power Output
C.O./Phone Line Input
Out to Telephones
Keyless Entry/Postal Lock Contact Closure Input
Door Box 1 Line Input

**** Note:*** *To increase surge protection, fasten a wire from the screw terminal to Earth Ground (grounding rod, water pipe, etc.)*

A. One or Two Doorboxes Sharing a Phone Line and Controlling Two Optional Cameras

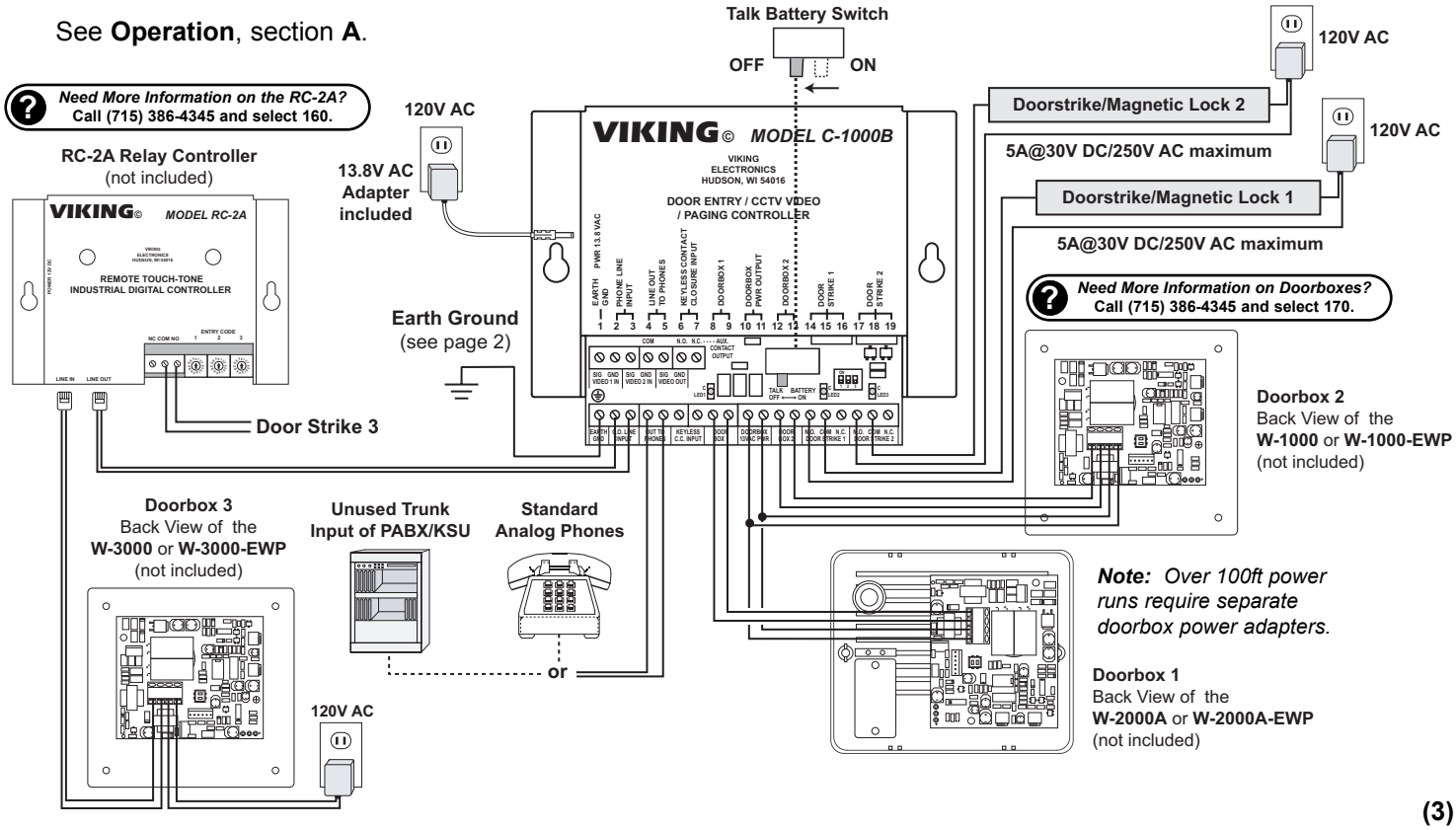
See **Operation**, section **A**.



B. Using the C-1000B with Three Doorboxes and No C.O. Line

The **C-1000B** can be used to control up to 3 doorboxes. If door/gate control is needed for Doorbox 3, the **C-1000B** must be used in combination with the **RC-2A** Remote Controller (**Fax Back Document 160**). In this configuration, the **RC-2A** is connected in parallel with doorbox 3 to provide an additional relay contact. ***Note:*** *Doorbox 3 will not have Touch Tone dialing restriction (security). Be sure to program the **RC-2A** and the **C-1000B** with different security codes.*

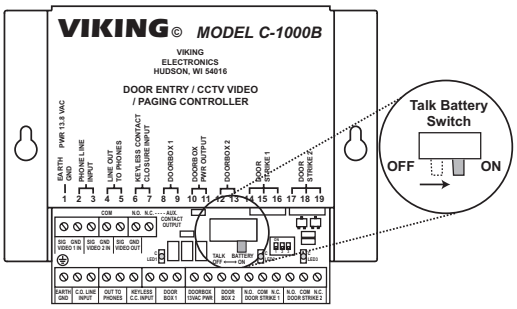
See **Operation**, section **A**.



C. Using a C-1000B without a C.O. Line

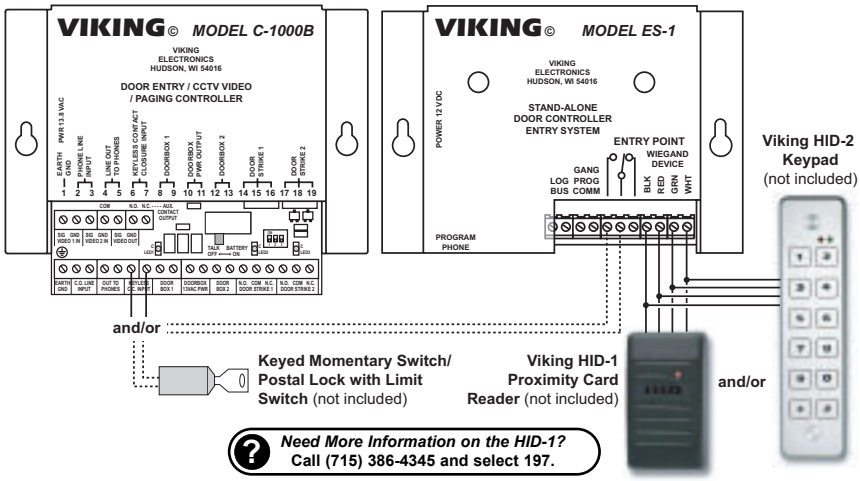
The **C-1000B** can also be used without a C.O. line. This is ideal for connecting the **C-1000B** to an unused trunk/line input of your phone system or connecting to phones used only for doorbox communication.

Step 1.	Connect the power, required doorboxes, and doorstrike outputs (if required) as shown in section **A**.
Step 2.	Connect an analog phone or PABX/KSU trunk port to terminals **4** & **5**, "**LINE OUT TO PHONES**" output on the **C-1000B**.
Step 3.	Be sure the "**Talk Battery Switch**" is in the **ON** position.



D. Using the C-1000B with Keyless Entry, Proximity Card Reader or a Postal Lock Switch

Step 1.	Connect a device that can provide a momentary contact closure, such as the Viking **ES-1** with **HID-1** Card Reader or **HID-2** Keypad, keyed switch, postal lock with limit switch, etc. to terminals **6** & **7**, "**KEYLESS CONTACT CLOSURE INPUT**".
Step 2.	Connect doorboxes and doorstrike outputs (if required) as shown in section **A**.
Step 3.	See **Operation** section **A**, **5. Keyless Entry/Postal Lock**.


VIKING© MODEL C-1000B
VIKING© MODEL ES-1
STAND-ALONE DOOR CONTROLLER ENTRY SYSTEM
Viking HID-2 Keypad (not included)
and/or
Keyed Momentary Switch/ Postal Lock with Limit Switch (not included)
Viking HID-1 Proximity Card Reader (not included)
and/or

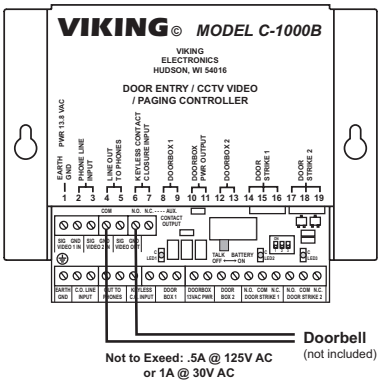
Need More Information on the ES-1? **Call (715) 386-4345 and select 193.**

Need More Information on the HID-2? **Call (715) 386-4345 and select 199.**

Need More Information on the HID-1? **Call (715) 386-4345 and select 197.**

E. Using the C-1000B to Trigger a Doorbell

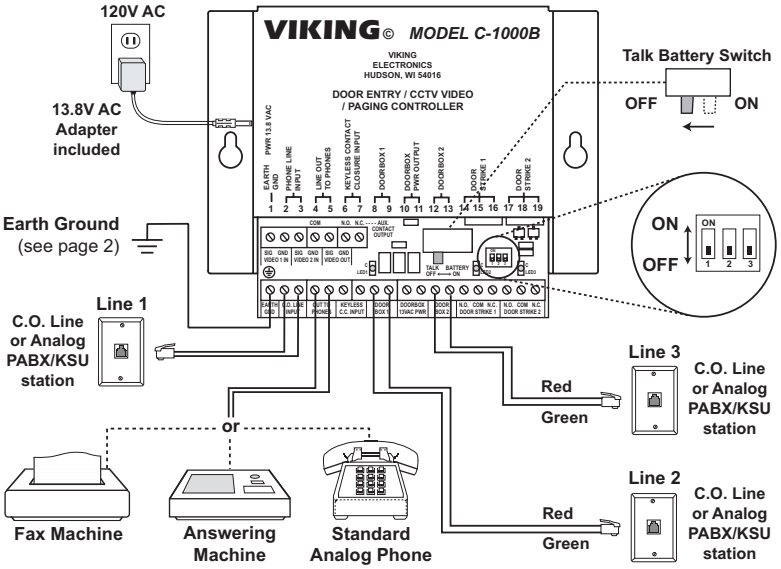
Step 1.	Connect the doorbell (not included) as shown to the right. ***Note:*** *The **C-1000B** will not supply power to the doorbell, a power adapter is necessary.*
Step 2.	Connect doorboxes and doorstrike outputs (if required) as shown in section **A**.
Step 3.	Program the **Auxiliary Contact Output** as desired (see **Programming** section **B**).
Step 4.	See **Operation** section **A**, **6. Auxiliary Contacts**.



F. Line Concentrator Mode (One Telcom Device Can Answer up to Three Lines)

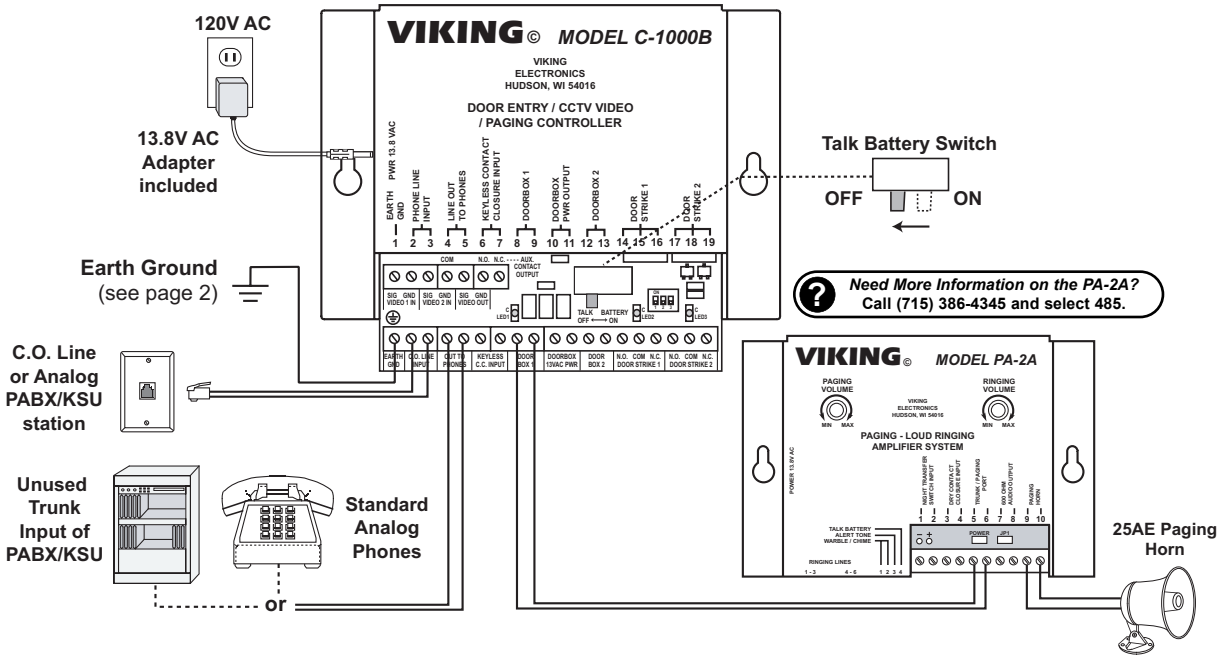
The **C-1000B** can be used as a line concentrator, allowing up to 3 separate C.O. lines to connect to one telcom device.

Step 1.	Connect as shown to the right.
Step 2.	Move DIP switch **3** to the **OFF** position (see **Programming** section **E**).
Step 3.	Be sure the "**Talk Battery Switch**" is set to **OFF**.
Step 4.	See **Operation** section **C**.



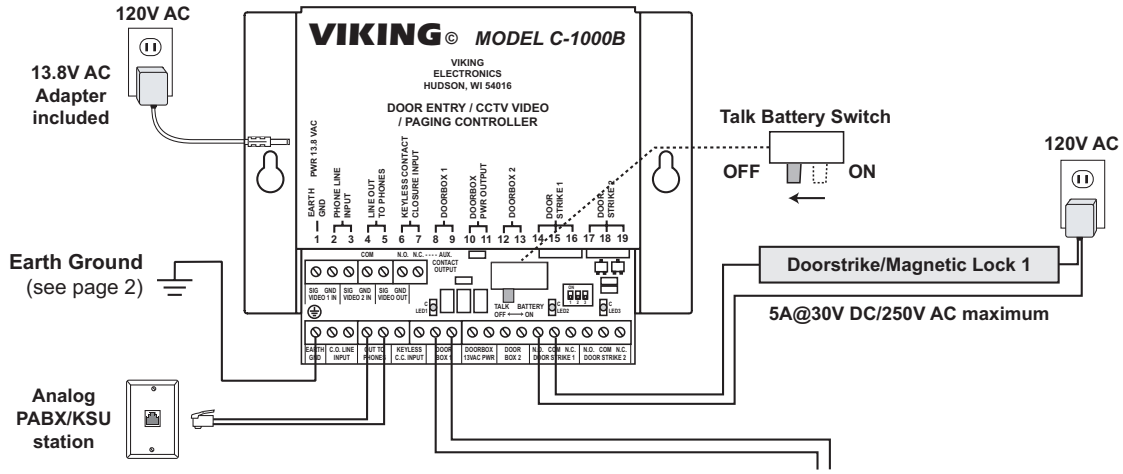
G. Adding Paging to Homes and Small Businesses with Single Line Phones

The **C-1000B** can be used to control a paging amplifier from a single phone line. The amplifier used must provide talk battery, such as the **Viking** model **PA-2A** (**Fax Back Document 485**) or **CPA-7B** (**Fax Back Document 455**). If need be, a doorbox or a second paging amplifier may also be added to the **C-1000B** Doorbox 2 terminals (see **Installation** section **A**). ***Note:*** *The **C-1000B** must be programmed to be in the **Paging Mode, ✱4** (see **Programming** section **B** and **Operation** section **B**).*


120V AC
13.8V AC Adapter included
VIKING © MODEL C-1000B
VIKING ELECTRONICS HUDSON, WI 54016
DOOR ENTRY / CCTV VIDEO / PAGING CONTROLLER
Talk Battery Switch
OFF
ON
Earth Ground (see page 2)
Need More Information on the PA-2A? Call (715) 386-4345 and select 485.
C.O. Line or Analog PABX/KSU station
VIKING © MODEL PA-2A
PAGING VOLUME
RINGING VOLUME
PAGING - LOUD RINGING AMPLIFIER SYSTEM
Unused Trunk Input of PABX/KSU
Standard Analog Phones
or
25AE Paging Horn

H. Using the C-1000B on an Analog Station Port (Analog PABX/KSU Station Mode)

This application is ideal for connecting the **C-1000B** to an unused analog station of your phone system. See **Programming** section **F** and **Operation** section **A**. ***Important:*** *In this application, only a single door phone is used and **✱5** must be selected when in programming.*



**** Note:*** *The **K-1700-3**'s keypad can be used for extension dialing, etc., but can **NOT** be used for keyless entry (see **Installation and Applications** section **D**).*

Note: *The **E-10** and **E-20A** Speaker Phones may be used with or without a dialer, depending on the application.*

Need more information on the products shown to the right? Call 715-386-4345 and enter the number below:

Model	Fax #	Description
E-10/E-20A	210	Handsfree Speaker Phone
E-30	212	Vandal Resistant Handsfree Speaker Phone
E-1600A	215	Emergency/Elevator Phone
K-1700-3	157	Handsfree Speaker Phone with Keypad
K-1900-5	317	Touch Tone Dialer

Programming

A. Accessing the Programming Mode

1. Accessing the Programming Mode Locally (Security Code Bypass Mode)

Step 1.	Disconnect the **PHONE LINE INPUT**.
Step 2.	Slide the **TALK BATTERY** switch to the **ON** position.
Step 3.	Move DIP switch 2 from OFF to ON (see **Programming** section **E**).
Step 4.	Come off-hook with a phone connected to terminals **4** & **5**, **LINE OUT TO PHONES**.
Step 5.	A double beep will indicate that you have accessed the programming mode.
Step 6.	You can now Touch Tone program the features listed in section **B** below.
Step 7.	When finished programming, hang up and move DIP switch 2 to the OFF position.
Step 8.	Slide the **TALK BATTERY** switch back to the **OFF** position.
Step 9.	Reconnect line to **PHONE LINE INPUT**.

Note: *Programming from a cell-phone may not be suitable in areas with weak coverage.*

2. Accessing the Programming Mode Remotely

Step 1.	Call into the **C-1000B** from a Touch Tone phone. ***Note:*** *Call in from another line to avoid C.O. busy signals,etc.*
Step 2.	Answer the call using the phone (device) connected to terminals **4** & **5**, **LINE OUT TO PHONES**.
Step 3.	From either phone enter ✱ followed by the six digit security code (factory set to **845464**, see **Programming** section **D**).
Step 4.	A double beep will indicate that you have accessed the programming mode.
Step 5.	You can now Touch Tone program the features listed in section **B** below.

Note: *Programming from a cell-phone may not be suitable in areas with weak coverage. Analog PABX/KSU station mode must be programmed locally, see section 1 above.*

B. Quick Programming Features

	Enter Digits	- then -	Memory Location
Door strike 1 activation time .5 - 10 seconds (see "**Note 1**" below)	**2 digits** (00-10)	+	**#01**
Door strike 2 activation time .5 - 10 seconds (see "**Note 1**" below)	**2 digits** (00-10)	+	**#02**
Auxiliary contact activation time .5 - 10 seconds (see "**Note 1**" below)	**2 digits** (00-10)	+	**#03**
Note 1: 00 = .5 seconds, 01-10 = 1-10 seconds, factory set to 00 (.5 seconds).			
Auxiliary contact latched while either doorbox is activated	**11**	+	**#03**
** Auxiliary contact activated in custom ring cadence	**12**	+	**#03**
Security Code (factory set to 845464)	**6 digits** (0-9)	+	**#47**
Disable special modes (**✱1 - ✱6**) listed below (factory default)	**✱0**		
* Doorbell mode	**✱1**		
* Custom ring mode	**✱2**		
* Multiple relay activation mode	**✱3**		
* Paging mode	**✱4**		
* Analog PABX/KSU station mode	**✱5**		
* Inhibit latching commands mode	**✱6**		
Auxiliary contact mode (disables CCTV video control mode, factory default)	**✱7**		
CCTV video control mode (disables auxiliary contact mode)	**✱8**		
CCTV Inactive (Idle State) Modes:			
Camera 1 and 2 output disconntected (factory default)	**01**	+	**#04**
Output camera 1	**02**	+	**#04**
Continue to output video from last camera activated	**03**	+	**#04**
Sequenced video from camera 1 and 2 (rotates every 4 seconds)	**04**	+	**#04**
To reset to factory settings	**###**		

**** Note:*** *Multiple modes may be selected.*

***** Note:*** *Not compatible with Analog PABX/KSU Station mode.*

C. Programming Examples

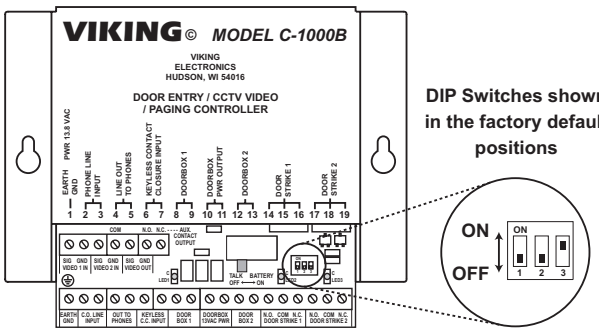
To Program the C-1000B...	Enter
1. ...to set door strike 1 to activate for 3 seconds	**03 #01**
2. ...to set the auxiliary contacts to activate a camera while either doorbox is activated	**11 #03**
3. ...to set the auxiliary contacts to activate an external ringer or strobe light in a custom ring cadence while either doorbox is ringing	**12 #03**
4. ...to have doorboxes ring phones in a custom ring pattern	**✱2**

D. Security Code

This six digit number can be used to access the programming mode. The security code has been factory set to **845464** (V-I-K-I-N-G). It is recommended that you change the security code to a personal 6 digit number. To change the security code, access programming (see **Programming** section **A**). Enter six digits 0-9 followed by **#47**. If you have forgotten your security code, follow the steps in **Programming** section **A, 1. Accessing the Programming Mode Locally**. ***Note:*** *The security code must be six digits in length and can NOT contain a ✱ or #.*

E. Dip Switch Programming

Switch	Position	Description
1	OFF	Doorstrike Activation = 0.5 seconds (factory setting)
1	ON	Doorstrike Activation = 10 seconds
2	OFF	Normal Mode (factory setting)
2	ON	Security Code Bypass Mode
3	OFF	Line Concentrator Mode
3	ON	Normal Operation (factory setting)


VIKING © MODEL C-1000B
VIKING ELECTRONICS HUDSON, WI 54016
DOOR ENTRY / CCTV VIDEO / PAGING CONTROLLER
DIP Switches shown in the factory default positions
ON
OFF
1 2 3

F. Mode Descriptions

Entering these codes while in programming will switch the **C-1000B** into the corresponding mode.

Disable Special Modes (∗0): This command disables (clears) all the special modes listed below. Enter this command before programming the rest of the selections to be sure no unwanted modes are set.

Doorbell Mode (∗1): In this mode, the ring signal from either doorbox is prevented from going through to the "**LINE OUT TO PHONES**" terminals. This is useful when a conventional door bell is connected to the auxiliary contacts. Now when someone activates a doorbox, the doorbell will chime rather than the phone ringing (see **Programming** section **B**).

Custom Ring Mode (∗2): With this mode selected, the ring signal from the device ports are interrupted in a double burst pattern, making it easier to determine if the incoming call is from a doorbox or the C.O. line. ***Note:*** *Some telephones and phone systems are not compatible with this feature.*

Multiple Relay Activation Mode (∗3): If selected, after a door strike command is entered, the phone is switched back to the doorbox port so additional doorstrike (relay activation) commands can be entered. This is useful when letting someone through your gate with the first command then unlocking your front doorstrike with a second command. To return to the call on hold, enter "**#**".

Paging Mode (∗4): In this mode a paging system that provides talk battery (**Viking PA-2A** or **CPA-7B**) can be connected to one of the doorbox ports. When the person on the phone wants to make a page, they can enter "**#**" and a "**1**" or "**2**" depending on which port the paging amplifier is on. After the announcement is made another "**#**" will return them to the phone conversation.

Analog PABX/KSU Station Mode (∗5): This mode is ideal when installing the **C-1000B** on a phone system that does not have a spare trunk port but does have an unused analog station port. This mode allows any standard (POTS) telephone such as the **E-10**, **E-20A**, **E-30** or **K-1700-3** to be used in place of Doorbox 1. Only one door phone can be used in this mode. When the door phone goes off-hook, a hot-line dialer or ringdown station will call the desired phone system extension. The phone on that extension can then communicate with the door phone and activate doorstrikes as needed. ***Note:*** *Only a single door phone may be used. Multiple relay activation mode cannot be used with Viking door phone models* ***E-30*** *or any* ***1600A*** *Series phone.*

Inhibit Latching Commands Mode (∗6): In some installations it is critical that the door strike or door actuator not be turned on for long periods of time. To prevent this from happening, enter **∗6** when in programming. In this mode, the toggle command (**∗#**) and the continuous activation command (**∗1**) are ignored.

Operation

A. Doorbox Controller

1. Communicating with the Doorbox

a. Visitor Initiated Call

A visitor pressing the "Call" button will cause the phones connected to the "**LINE OUT TO PHONES**" terminals to ring. Simply answer your phone to converse with the visitor. After answering the call, a single or double beep will be heard in the phone, indicating which doorbox has called - a single beep for doorbox 1 and a double beep for doorbox 2.

b. Monitoring Doorboxes

A doorbox may be monitored from any phone connected to the **C-1000B** by Touch Tone dialing a "**#**" followed by a Touch Tone "**1**" or "**2**" to monitor doorbox 1 or doorbox 2 respectively. This feature is not available for pulse dialing phones. ***Note:*** *Do not attempt doorbox monitoring while a call is in progress, the call will be disconnected.* ***Note:*** *When monitoring, the auxiliary contact will only work on the* ***Continuous Mode*** *(**11**).*

2. Placing C.O. Line Calls on Hold

If a C.O. line call is in progress and a doorbox is activated, a single or double "call waiting" tone will be heard indicating doorbox 1 or doorbox 2 is calling. To place the in-progress call on hold and answer the calling doorbox, simply dial a Touch Tone "**#**", pulse dial a "**2**" or hook flash twice.

3. Activating a Doorstrike, Magnetic Lock or Gate Controller

To activate a relay contact, you must be communicating with a doorbox. Simply Touch Tone dial "**∗∗**", pulse dial a "**3**" or hook flash three times. Two confirmation tones will be heard and the relay will be activated for the programmed doorstrike activation time. The phone will then be returned to the C.O. line. If a call was in progress, the original caller will be taken off hold to continue the conversation. To return to the original call without activating a relay, Touch Tone dial "**#**", pulse dial a "**2**" or hook flash twice.

4. Features

	Touch Tone Commands	* Pulse Dial/Flash Commands
Activate doorstrike relay 1 or 2	✱ ✱	Pulse dial 3 or hook flash 3 times
Continuously activate doorstrike relay 1 or 2	✱ 1	
Continuously de-activate doorstrike relay 1 or 2	✱ 0	
Activate opposite doorstrike relay	✱ 2	
Toggle relay from last position	✱ #	
Answer or disconnect a doorbox call	#	Pulse dial 2 or hook flash 2 times
Monitor doorbox 1	# 1	
Monitor doorbox 2	# 2	

Note: *When on the C.O. line, if a Touch Tone other than* **#** *is entered, any additional Touch Tones in that dial string will be ignored. To regain control of the* ***C-1000B****, the phone must be momentarily placed on-hook.*

**** Note:*** *Pulse dialing and flash commands are not compatible in the "Multiple Relay Activation" mode.*

5. Keyless Entry/Postal Lock

When a momentary postal lock contact closure is made across terminals **6** & **7** (see **Installation** section **D**), the doorstrike 1 contact will activate for the programmed time.

6. Auxiliary Contacts

The auxiliary contacts are a separate set of contacts that can be programmed (see **Programming** section **B**) to activate in different patterns when doorbox 1 or doorbox 2 is off hook. A momentary activation, a continuous activation while the doorbox is in use, and a ring cadence pattern are available.

a. Timed Activation

If an auxiliary contact activation time is programmed (two digits **00-10** followed by **#03**), when either doorbox is activated, the auxiliary contacts will activate for the programmed time (.5 - 10 seconds). This is ideal for operating a doorbell or chime.

b. Continuous Activation

If the auxiliary contact is programmed to continuously activate (**11** followed by **#03**), while either doorbox is ringing or in use, the auxiliary contacts will latch. This is ideal for controlling cameras, lights, etc.

c. Ring Cadence Activation

If the auxiliary contact is programmed to custom ring cadence ("**12 #03**") when doorbox 1 is activated, a repeating 1 second on and 3 seconds off contact pattern is generated. If doorbox 2 is activated, a repeating double burst contact pattern is generated with 3 seconds off between patterns. ***Note:*** *Ring cadence activation is not compatible with the Analog PABX/KSU Station mode.*

B. Paging Controller

In this mode a paging system that provides talk battery (**Viking PA-2A** or **CPA-7B**) can be connected to one of the doorbox ports. When the person on the phone wants to make a page, they can enter "**#**" and a 1 or 2 depending on which port the paging amplifier is on. After the announcement is made, if a call was in progress, another "**#**" will return them to the phone conversation. If a doorbox is used in this mode, enter "**✱✱**" to activate the relay contact followed by a "**#**" to return to a caller on hold.

C. Line Concentrator

The first ringing line will ring to the "**LINE OUT TO PHONES**" terminals **4** & **5** on the **C-1000B**. On outbound calls, the **C-1000B** will default to the primary line (line connected to the "**PHONE LINE INPUT**" terminals **2** & **3**). To access the lines connected to "**DOORBOX 1**" terminals or "**DOORBOX 2**" terminals, simply dial Touch Tones "**#1**" or "**#2**" respectively. ***Note:*** *DIP switch 3 must be in the* ***OFF*** *position.*

D. Doorbox Triggered CCTV Camera Switching (CCTV Video Control Mode)

The **C-1000B** allows two CCTV video cameras to be concentrated down to one video signal, by switching to the camera at the zone/entry point being used. When the **C-1000B** detects doorbox ringing or when a doorbox is monitored it will connect that camera's video feed to the video output. This happens in a first come, first serve manner. When both doorboxes are inactive (idle) the **C-1000B** can be programmed to do one of four operations:

1. Disconnect all cameras so there is no video output. This mode is very convenient when used in combination with a switching video RF modulator (Radio Shack part # 15-1214 or equivalent), which automatically switches the video source in when a video signal is present. A home TV's broadcast/satellite program will be automatically interrupted to show video feed of the arriving guest (see **Installation** section **A**).
2. Connect video feed from camera 1.
3. Remain connected to the camera near the last doorbox activated and continue feeding video from it until the other doorbox is activated.
4. Sequence video from both cameras connected, rotating every 4 seconds.

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